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EXAMINER

BLAIR, DOUGLAS B

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/535,486	<b>Applicant(s)</b> EIMERS-KLOSE ET AL.	
	<b>Examiner</b> DOUGLAS B. BLAIR	<b>Art Unit</b> 2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8, 9, 11, 13-15, 17, and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8, 9, 11, 13-15, 17, and 19-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Response to Amendment***

The applicant has added claim 24. Claims 8, 9, 11, 13-15, 17, and 19-24 are currently pending.

### ***Response to Arguments***

Applicant's arguments filed 11/27/2009 with respect to the independent claims have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 9, 11, 13, 15, 17, and 19-24 have been considered but are moot in view of the new ground(s) of rejection.

The applicant's independent claims read on generic point-to-point architecture. Jannu discloses an identical point-to-point architecture.

Col. 1, lines 38-49 of Jannu:

If a middleware product is not used, a heterogeneous computer system would typically need to operate in a point-to-point mode, for example using message queuing as point-to-point. Under the point-to-point approach, illustrated in FIG. 1, if six separate and distinct applications 120, 122, 124, 126, 128, and 130 are to communicate, connections 101 115 must be made between every possible pair of systems. This type of configuration is undesirable for several reasons. First, the number of connections is large. The number of connections required in a system of  $n$  components is  $(n(n-1))/2$ . For example, a six component system such as that in FIG. 1 requires  $(36-6)/2$  or 15 connections.

Page 4, lines 17-25 of the applicant's disclosure:

Depending on the design of the gateway to be implemented, these logical software gateways are then combined to form one overall system. In general, not all subnets are directly connected to one another, so that only selected connection pathways are to be provided with selected logical software gateways. If each subnet is to be connected to each other subnet,  $N*(N-1)/2$  logical software gateways are needed. Variable  $N$  is the number of subnets in the overall system. Thus, for three subnets, there will be three logical software gateways; for four subnets there will be six, and for five subnets there will be ten logical software gateways. It is of secondary importance whether these logical software gateways are located in one central gateway or in a plurality of point-to-point gateways.

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Jannu and the applicant teach the same architecture defined by the same equation. Each connection in Jannu is modular. Jannu col. 1, lines 56-58 clearly states that only the adapters between affected pieces of equipment are replaced and not those adapters between existing equipment. Using software to implement the gateway is not a patentable distinction. The applicant's specification does not put the public into possession of any more information about implementing a gateway in software than what is disclosed in Jannu. Such a feature is an obvious design choice. The applicant did not invent the concept of using software instead of hardware to perform a task.

The applicant is encouraged to implement the claim recommendations at the conclusion of this office action in order to overcome the prior art rejections.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8, 9, 11, 13-15, 17, and 19-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 8 and its dependent claims are directed towards a device comprising a gateway unit and bus-specific receiving objects. The applicant's specification states that the gateway unit is a program (page 4, lines 28-29) and the specification does not provide any description of whether the bus-specific receiving objects are software or hardware elements so the term is interpreted as being broad enough to cover either. Claim 14 and its dependents are directed towards a device comprising a gateway unit including at least one modular logical gateway and bus-specific receiving object. The modular logical

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gateway is explicitly disclosed as being software and the bus-specific receiving object covers software as explained with respect to claim 8. Because the devices in claims are 8, 9, 11, 13-15, 17, and 19-24 are broad enough to cover software only implementations, they are treated as software per se. Software per se does not fit into any of the statutory categories of invention.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 recites the limitation "the modular gateway". The claim does not identify one particular modular gateway but instead specifies that there is at least one modular gateway. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Interpretation***

The applicant's claims that the device is connecting subnets in a vehicle cannot be a patentable distinction for at least two reasons.

First, the applicant's specification does not provide any definition of what a vehicle comprises. According to its broadest definition a vehicle is "any means in or by which someone travels or something is carried or conveyed; a means of conveyance or transportation."

According to the definition of the term and the breadth of the applicant's disclosure, planet Earth

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qualifies as a vehicle because it transports everything on the Earth around the Sun. All of the inventions used in the prior art rejections which follow in this Office Action occur on planet Earth and therefore satisfy the applicant's vehicle limitation. If the applicant had intended for the applicant's invention to be limited to a certain type of vehicle, then the applicant should have disclosed such.

Second, as previously cited in prior Office actions, it is obvious to make any device portable or movable if the device does not produce any new or unexpected result when made portable or movable (MPEP section 2144.04(V)(A)).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 9, 11, 13-15, 17, and 19-24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 5,630,101 to Sieffert.

As to claim 8, Sieffert teaches a device for connecting subnets in a vehicle, comprising: a gateway unit configured to connect at least two subsystems, wherein the gateway unit (**imaging system 10**) is made of at least one modular software gateway (**interface component 14**), which routes messages between only two subnets in the vehicle (**col. 6, lines 9-15**); and bus-specific receiving objects (**Interface Executive 28, the Interface Executive is disclosed as being implemented using object oriented functionality and therefore qualifies as "objects"**)

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configured to one of (1) relay incoming messages to selected software gateways (**col. 9, lines 50-54**), and (2) monitor access to a particular bus, for each subnet, and wherein the bus-specific receiving objects are provided for each subnet (**col. 9, lines 43-50**).

As to claim 9, Sieffert teaches the device as recited in claim 8, wherein at least three subnets are connected to the gateway unit, the gateway unit including a plurality of modular software gateways, each of the modular software gateways routing messages between only two subsystems (**col. 6, lines 8-9, Sieffert supports a limitless number of pipelines**).

As to claim 11, Sieffert teaches the device as recited in claim 8, wherein the receiving objects include routing tables in which a treatment of incoming messages is configured (**The applicant's specification does not provide a limiting definition of a "routing table". In col. 9, lines 43-54, the Interface Executive clearly "treats" messages and therefore satisfies the claim language.**).

As to claim 13, Sieffert teaches the device as recited in claim 8, wherein the modular software gateway is configured to buffer incoming messages (**The applicant does not provide a limiting definition of "buffering". See the recommended amendment following the rejections**) and perform protocol-specific adaptations (**col. 8, line 27-col. 9, line 40**).

As to claim 22, Sieffert teaches the device as recited in claim 8, wherein the bus-specific receiving objects are configured to relay incoming messages to selected software gateways, the bus-specific receiving objects being provided for each subnet (**The Interface Executive relays for each subnet, See recommended claim amendments following the rejections**), wherein at least three subnets are connected to the gateway unit, the gateway unit including a plurality of modular software gateways, each of the modular software gateways routing

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messages between only two subsystems (**See explanation of claim 9**), wherein the receiving objects include routing tables in which a treatment of incoming messages is configured (**See explanation of claim 11**), and wherein the modular software gateway is configured to buffer incoming messages and perform protocol-specific adaptations (**See explanation of claim 13**).

As to claim 23, it is rejected for the same reasoning as claims 8 and 22.

As to claim 24, Sieffert teaches the device as recited in claim 11, wherein the modular software gateway expands gateways without changing the at least one modular software and the routing tables (**col. 10, lines 4-27**).

As to claims 14, 15, 17, 19, 20 and 21, they are rejected for the same reasoning as claims 8, 9, 11, 13, 22, and 23, respectively.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 9, 11, 13-15, 17, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,630,101 to Seiffert.

Should the applicant not accept the Earth anticipating the claimed vehicle, the claimed vehicle would be obvious for the reasons explained prior in this office action.



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Claims 8 and 14 are under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent number 7,152,094 to Jannu.

Claims 8 and 14 are rejected as previously indicated in the last office action. Jannu does not explicitly state that the connections are implemented using software. Jannu does not specify either hardware or software. Clearly someone with ordinary skill would recognize that these connections could be implemented as software.

### ***Allowable Subject Matter***

In order to differentiate from the prior art of record it is recommended that the applicant do one of the following:

Claim the buffering disclosed in the paragraph beginning on page 5, lines 29. Seiffert does not disclose buffering in the specific context disclosed by the applicant.

Amend the claims to specify that there is an individual receiving object for each subnet. Seiffert reads on the receiving objects as broadly claimed but Seiffert does not teach an individual object for each subnet.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS B. BLAIR whose telephone number is (571)272-3893. The examiner can normally be reached on 9:00am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Douglas B Blair/  
Primary Examiner, Art Unit 2442